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FAMILY ECONOMICS REVIEW is a quarterly report on research of the Consumer and Food Economics Institute and on information from other sources relating to economic aspects of family living. It is prepared primarily for home economics agents and home economics specialists of the Cooperative Extension Service.

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USDA FAMILY FOOD PLANS, 1974

by Betty Peterkin

Three USDA family food plans—low-cost, moderate-cost, and liberal—have been revised. The cost of food at home released by the Department of Agriculture each month will be based on the revised plans starting with the December 1974 estimates.

What are the USDA Food Plans?

The food plans are amounts of foods of different types (food groups) that families might buy, or obtain by home production, to provide nutritious diets for family members at different levels of cost (tables 1, 2, and 3). Such food plans have served for more than 40 years as guides for estimating food needs and food costs of families and population groups. At each level of cost, amounts of foods for men, women, and children of different ages and for pregnant and nursing women are suggested. A plan for any family can be determined by totaling amounts of foods suggested for persons of the sex and age of family members. Food costs for a family following the plan can be estimated from costs of the plans released each month.

Amounts of food in the plans are specified for 15 food groups (see tables 1, 2, and 3). Foods within a food group are similar to each other in nutritive value. In some groups—meat, poultry, and fish, for example—one food in the group might be used to replace another in a meal. Although each group is of special importance for one or more nutrients or as a source of food energy, several groups may provide appreciable amounts of the same nutrient. The cost of providing the nutrient may differ considerably among groups. For example, foods in the meat and bread groups provide iron; however a milligram of iron from the meat group costs much more than a milligram of iron from the bread group.

The low-cost plan and the moderate-cost plan, shown in tables 1 and 2, provide diets consistent with food patterns that are typical of those of most groups of people in this country. Compared with the moderate-cost plan, the low-cost plan calls for smaller amounts of most foods, especially milk, cheese

and ice cream; meat, poultry, and fish; fruit and vegetables other than potatoes; and baker products. It calls for larger amounts of cereal, flour, and bread. Users of the low-cost plan are expected to select, most of the time, the lower cost foods within food groups—ground beef rather than steak and bread rather than fancy rolls, for example. Plans for nutritious diets at costs considerably lower than the low-cost plan can be developed. One such plan is now being developed by the USDA.

The moderate-cost plan not only includes larger quantities of meat and vegetables and fruit than the low-cost plan, but allows for more frequent purchase of the higher priced cuts of meat and out-of-season foods. This plan allows for meals with more variety and less home preparation than does the low-cost plan. Greater discard of food beyond the normal discard of bone and other inedible parts of food is assumed in the moderate-cost than the low-cost plan.

The liberal plan allows for a greater variety of foods and for considerably more animal products, fruits, and vegetables than the moderate-cost plan. More expensive choices within the groups account for much of the greater cost of the liberal plan. Greater discard of edible food is assumed in the liberal than in the less costly plans.

Reasons for Revising the Food Plans

The maintenance of the USDA food plans—their development, their interpretation through publications for leaders and consumers, and the periodic estimates of their costs—is an ongoing project in the Consumer and Food Economics Institute. The plans are evaluated, and revised as required, when new information on food consumption, food prices, food composition, and nutritional needs becomes available. The quantities of food groups in the food plans were last revised in 1964.¹ Nutritional goals based on the

¹FAMILY ECONOMICS REVIEW, October 1964, Agricultural Research Service, USDA.

Table 1.--Low-cost food plan: Amounts of food for a week 1/

Family member	Milk, cheese, ice cream 2/	Meat, poultry, fish 3/	Eggs	Dry beans and peas, nuts 4/	Dark-green, deep-yellow vegetables	Citrus fruit, tomatoes	Potatoes	Other vegetables, fruit	Cereal	Flour	Bread	Other bakery products	Fats, oils	Sugar, sweets	Accessories 5/
	Qt	Lb	No.	Lb	Lb	Lb	Lb	Lb	Lb	Lb	Lb	Lb	Lb	Lb	Lb
Child:															
7 months to 1 year-----	5.70	0.56	2.1	0.15	0.35	0.42	0.06	3.43	6/ 0.71	0.02	0.06	0.05	0.05	0.18	0.06
1-2 years-----	3.57	1.26	3.6	.16	.23	1.01	.60	2.88	6/ .99	.27	.76	.33	.12	.36	.68
3-5 years-----	3.91	1.52	2.7	.25	.25	1.20	.85	2.95	.90	.30	.91	.57	.38	.71	1.02
6-8 years-----	4.74	2.03	2.9	.39	.31	1.58	1.10	3.67	1.11	.45	1.27	.84	.52	.90	1.43
9-11 years-----	5.46	2.57	3.9	.44	.38	2.13	1.41	4.81	1.24	.62	1.65	1.20	.61	1.15	1.89
Male:															
12-14 years-----	5.74	2.98	4.0	.56	.40	1.99	1.50	3.90	1.15	.67	1.88	1.25	.77	1.15	2.61
15-19 years-----	5.49	3.74	4.0	.34	.39	2.20	1.87	4.50	.90	.75	2.10	1.55	1.05	1.04	3.09
20-54 years-----	2.74	4.56	4.0	.33	.48	2.32	1.87	4.81	.93	.71	2.10	1.47	.91	.81	2.11
55 years and over-----	2.61	3.63	4.0	.21	.61	2.38	1.72	4.92	1.02	.62	1.73	1.23	.77	.90	1.16
Female:															
12-19 years-----	5.63	2.55	4.0	.24	.46	2.17	1.17	4.57	.75	.63	1.44	1.05	.53	.88	2.44
20-54 years-----	3.02	3.21	4.0	.19	.55	2.34	1.40	4.17	.71	.55	1.31	.94	.59	.72	2.13
55 years and over-----	3.01	2.45	4.0	.15	.62	2.54	1.22	4.57	.97	.58	1.24	.86	.38	.64	1.11
Pregnant-----	5.25	3.68	4.0	.29	.67	2.80	1.65	4.99	.95	.66	1.52	1.06	.55	.78	2.56
Nursing-----	5.25	4.16	4.0	.26	.66	2.99	1.67	5.33	.78	.61	1.55	1.16	.76	.91	2.70

1/ Amounts are for food as purchased or brought into the kitchen from garden or farm. Amounts allow for a discard of about one-tenth of the edible food as plate waste, spoilage, etc. Amounts of foods are shown to two decimal places to allow for greater accuracy, especially in estimating rations for large groups of people and for long periods of time. For general use, amounts of food groups for a family may be rounded to the nearest tenth or quarter of a pound.

2/ Fluid milk and beverage made from dry or evaporated milk. Cheese and ice cream may replace some milk. Count as equivalent to a quart of fluid milk: Natural or processed Cheddar-type cheese, 6 oz.; cottage cheese, 2-1/2 lbs.; ice cream, 1-1/2 quarts.

3/ Bacon and salt pork should not exceed 1/3 pound for each 5 pounds of this group.

4/ Weight in terms of dry beans and peas, shelled nuts, and peanut butter. Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as .33 pound.

5/ Includes coffee, tea, cocoa, punches, ades, soft drinks, leavenings, and seasonings. The use of iodized salt is recommended.

6/ Cereal fortified with iron is recommended.

Table 2.--Moderate-cost food plan: Amounts of food for a week 1/

Family member	Milk, cheese, ice cream <u>2/</u>	Meat, poultry, fish <u>3/</u>	Eggs	No.	Dry beans and peas, nuts <u>4/</u>	Dark-green, deep-yellow vegetables	Citrus fruit, tomatoes	Potatoes	Other vegetables, fruit	Cereal	Flour	Bread	Other bakery products	Fats, oils	Sugar, sweets	Accessories <u>5/</u>
	<u>Qt</u>	<u>Lb</u>	<u>No.</u>		<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>
Child:																
7 months to 1 year-----	6.46	0.80	2.2	0.13	0.41	0.49	0.06	3.98	6/ 0.64	0.02	0.06	0.05	0.05	0.05	0.19	0.08
1-2 years-----	4.04	1.69	4.0	.15	.29	1.24	.59	3.44	<u>2/</u> 1.03	.26	.81	.33	.12	.26	.26	.79
3-5 years-----	4.74	1.88	3.0	.22	.30	1.46	.85	3.51	.74	.27	.82	.73	.41	.81	.81	1.42
6-8 years-----	5.79	2.60	3.3	.34	.37	1.94	1.17	4.39	.84	.39	1.14	1.11	.56	1.03	1.03	1.97
9-11 years-----	6.68	3.31	4.0	.38	.45	2.61	1.40	5.76	1.03	.51	1.47	1.51	.66	1.31	1.31	2.63
Male:																
12-14 years----	7.02	3.77	4.0	.48	.48	2.44	1.52	4.66	.94	.56	1.69	1.54	.85	1.34	1.34	3.65
15-19 years----	6.65	4.65	4.0	.29	.47	2.73	2.00	5.45	.80	.67	1.98	1.82	1.05	1.15	1.15	4.41
20-54 years----	3.36	5.73	4.0	.29	.59	2.92	1.94	5.93	.76	.65	1.97	1.65	.95	.96	.96	2.95
55 years and over-----	2.97	4.64	4.0	.19	.70	2.91	1.69	5.88	.89	.53	1.58	1.45	.87	1.05	1.05	1.50
Female:																
12-19 years----	6.22	3.32	4.0	.24	.53	2.62	1.21	5.38	.68	.56	1.34	1.22	.56	.97	.97	3.36
20-54 years----	3.35	4.12	4.0	.19	.62	2.84	1.35	4.94	.54	.49	1.28	1.08	.65	.81	.81	2.89
55 years and over-----	3.35	3.21	4.0	.14	.72	3.09	1.17	5.50	.81	.52	1.20	.98	.45	.73	.73	1.39
Pregnant-----	5.44	4.57	4.0	.25	.91	3.52	1.60	6.13	.73	.83	1.77	1.28	.46	.85	.85	3.50
Nursing-----	5.31	5.01	4.0	.26	.91	3.76	1.73	6.52	.74	.81	1.84	1.42	.69	1.00	1.00	3.79

1/ Amounts are for food as purchased or brought into the kitchen from garden or farm. Amounts allow for a discard of about one-sixth of the edible food as plate waste, spoilage, etc. Amounts of foods are shown to two decimal places to allow for greater accuracy, especially in estimating rations for large groups of people and for long periods of time. For general use, amounts of food groups for a family may be rounded to the nearest tenth or quarter of a pound.

2/ Fluid milk and beverage made from dry or evaporated milk. Cheese and ice cream may replace some milk. Count as equivalent to a quart of fluid milk: Natural or processed Cheddar-type cheese, 6 oz.; cottage cheese, 2-1/2 lbs.; ice cream, 1-1/2 quarts.

3/ Bacon and salt pork should not exceed 1/3 pound for each 5 pounds of this group.

4/ Weight in terms of dry beans and peas, shelled nuts, and peanut butter. Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as .33 pound.

5/ Includes coffee, tea, cocoa, punches, ades, soft drinks, leavenings, and seasonings. The use of iodized salt is recommended.

6/ Cereal fortified with iron is recommended.

Table 3.--Liberal food plan: Amounts of food for a week 1/

Family member	Milk, cheese, ice cream <u>2/</u>	Meat, poultry, fish <u>3/</u>	Eggs	Dry beans and peas, nuts <u>4/</u>	Dark-green, deep-yellow vegetables	Citrus fruit, tomatoes	Potatoes	Other vegetables, fruit	Cereal	Flour	Bread	Other bakery products	Fats, oils	Sugar, sweets	Accessories <u>5/</u>
	<u>Qt</u>	<u>Lb</u>	<u>No.</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>	<u>Lb</u>
Child:															
7 months to 1 year-----	6.94	0.97	2.3	0.14	0.43	0.60	0.06	4.71	6/ 0.64	0.02	0.05	0.06	0.05	0.20	0.09
1-2 years-----	4.26	2.07	4.0	.17	.31	1.50	.59	4.10	<u>6/</u> 1.07	.28	.82	.35	.13	.27	.95
3-5 years-----	5.08	2.35	3.1	.23	.32	1.77	.85	4.18	.76	.27	.79	.78	.45	.85	1.74
6-8 years-----	6.25	3.18	3.4	.36	.40	2.35	1.18	5.21	.85	.39	1.08	1.23	.60	1.08	2.41
9-11 years-----	7.21	4.04	4.0	.39	.48	3.15	1.41	6.83	1.04	.51	1.39	1.67	.71	1.38	3.21
Male:															
12-14 years----	7.57	4.57	4.0	.50	.51	2.94	1.52	5.52	.95	.56	1.60	1.71	.92	1.40	4.47
15-19 years----	7.18	5.59	4.0	.31	.50	3.29	2.01	6.45	.84	.69	1.92	2.05	1.07	1.20	5.36
20-54 years----	3.64	6.83	4.0	.32	.62	3.51	1.95	6.99	.79	.66	1.91	1.86	.95	1.00	3.54
55 years and over-----	3.24	5.54	4.0	.19	.76	3.52	1.68	6.97	.89	.54	1.49	1.57	.94	1.09	1.82
Female:															
12-19 years----	6.72	3.97	4.0	.25	.56	3.15	1.21	6.34	.71	.59	1.31	1.35	.54	.98	4.09
20-54 years----	3.62	4.86	4.0	.20	.66	3.41	1.35	5.81	.56	.51	1.24	1.22	.66	.84	3.47
55 years and over-----	3.65	3.79	4.0	.15	.76	3.71	1.14	6.42	.74	.54	1.17	1.12	.48	.77	1.66
Pregnant-----	5.91	5.43	4.0	.26	.96	4.22	1.57	7.17	.70	.87	1.70	1.45	.46	.87	4.20
Nursing-----	5.76	5.97	4.0	.28	.97	4.51	1.72	7.66	.75	.84	1.76	1.58	.68	1.02	4.52

1/ Amounts are for food as purchased or brought into the kitchen from garden or farm. Amounts allow for a discard of about one-fourth of the edible food as plate waste, spoilage, etc. Amounts of foods are shown to two decimal places to allow for greater accuracy, especially in estimating rations for large groups of people and for long periods of time. For general use, amounts of food groups for a family may be rounded to the nearest tenth or quarter of a pound.

2/ Fluid milk and beverage made from dry or evaporated milk. Cheese and ice cream may replace some milk. Count as equivalent to a quart of fluid milk: Natural or processed Cheddar-type cheese, 6 oz.; cottage cheese, 2-1/2 lbs.; ice cream, 1-1/2 quarts.

3/ Bacon and salt pork should not exceed 1/3 pound for each 5 pounds of this group.

4/ Weight in terms of dry beans and peas, shelled nuts, and peanut butter. Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as .33 pound.

5/ Includes coffee, tea, cocoa, punches, ades, soft drinks, leavenings, and seasonings. The use of iodized salt is recommended.

6/ Cereal fortified with iron is recommended.

Recommended Dietary Allowance (RDA) released in 1964 by the National Academy of Sciences-National Research Council (NAS-NRC) and food consumption data from a nationwide food consumption survey conducted by USDA in 1955 were used in developing these plans. Certain assumptions with regard to selections and price levels of foods within food groups in estimating costs of the plans were revised slightly in 1967. Revisions took into account food consumption and food prices reported in the nationwide household food consumption survey conducted by USDA in 1965-66. The food plans were evaluated after the RDA were revised in 1968, and found to provide acceptable levels of nutrients for which adequate reliable food composition data were available. Therefore, no changes in the plans were made.

New food plans were developed in 1974 for several reasons:

1. In 1974 the NAS-NRC revised the RDA.² Recommended amounts of some nutrients have been changed and allowances for additional nutrients have been designated since the plans were revised in 1964.

2. The nutritive values of some foods have changed since the plans were developed in 1964. For example, many ready-to-eat cereals are now fortified with one-fourth or more of the RDA for many nutrients; enriched bread and flour, under regulations to go into effect in 1975, will contain more thiamin, riboflavin, and niacin added than in 1964. New information on the content of nutrients in foods has become available.

3. Information on food eaten by men, women, and children of different ages on a nationwide basis has become available since 1964. USDA's 1965-66 survey of household food consumption provided information for the first time on the food intake of individuals in the household.³ It also provides the most

recent detailed information on the quantities and money value of food used (purchased, home-produced, or received as gift or pay) by the total household.⁴

4. Shifts have occurred in food prices over the past 10 years. Prices for most foods have increased, but some have increased more than others. Several foods that are generally used in large amounts in the low-cost plan, such as dry beans and potatoes, have increased markedly in price. They are not, therefore, as economical relative to other foods as they were.

5. Computerized techniques have been designed for developing food plans, as they have for many other nutrition and food service related problems.

6. The amounts of foods suggested in the 1964 food plans for some sex-age categories were similar even though amounts of certain nutrients recommended for those categories were slightly different. To simplify the plans, such categories are combined in the 1974 plans. The 1964 plans were for 18 sex-age categories and pregnant and nursing women; the 1974 plans are for 12 sex-age categories and pregnant and nursing women.

7. Readymade bakery products were included with flour, cereal, and bread as one of the food groups for which amounts of foods were specified in the 1964 plans. Bakery products, more prominent in the marketplace now than they were in 1964, are not as economical as flour and cereal as sources of most of the nutrients they provide. In the 1974 plans, flour, cereal, bread, and other bakery products are included as four separate food groups.

Data and Procedures Used in Revising the Food Plans

The USDA's 1965-66 survey of household food consumption was used as a basis for each of the three food plans. Information from this survey was used to estimate amounts of food groups used to prepare meals and snacks for

²Recommended Dietary Allowances 1974, Eighth Edition, National Academy of Sciences-National Research Council, 1974.

³Food and Nutrient Intake of Individuals in the United States, Spring 1965, Household Food Consumption Survey 1965-66, Report No. 11, USDA-ARS, January 1972.

⁴Food Consumption of Households by Money Value of Food and Quality of Diet, Household Food Consumption Survey 1965-66, Report No. 17, USDA-ARS, October 1972.

men, women, and children of different ages in households with low, moderate, and liberal food costs. These amounts of food groups are the basis for the food consumption patterns used in developing the 1974 plans.

Urban survey households used as a basis for each of the three plans were selected by the money value of food they used per person in a week. Those with food valued at \$7 to \$9 per person per week in 1965-66 were used for the low-cost plan, at \$9 to \$12 per person for the moderate-cost plan and at \$12 to \$16 for the liberal plan. These groups of households fell in approximately the second, third, and fourth quartiles, respectively, on a distribution of urban households by the money value of their food per person.

Food patterns at all three cost levels had nutritional shortcomings. They centered around five nutrients: Calcium, iron, vitamin B₆, magnesium, and fat.

- Calcium levels were low for teenage girls and women and marginal for elderly men.
- Iron was low for infants, children 1 to 2 years, teenage girls, and women 20 to 54 years.
- Vitamin B₆ was low for teenage girls and women and marginal for elderly men.
- Magnesium was low for all persons over 12 years of age.
- Fat in the consumption pattern of older teenage boys, men, and of women 20 to 54 years provided more than 40 percent of the calories—the upper limit for fat allowed in the plans.

To take into account these problems, the food consumption patterns were altered using a

quadratic programming model, to provide the plans.⁵ For each of 12 sex-age categories, the model selected the optimum plan—the amounts of the 15 food groups that represented as little change as was necessary to meet nutritional goals at a given cost.⁶

Adjustments to the food consumption patterns at all three levels of cost involved the use of less meat, poultry, fish, and eggs, and more dry beans, peas, nuts, and grain products. Table 4 shows the amounts of food in food consumption patterns at three cost levels for the family of four (total of patterns for a man and a woman 20 to 54 years and children 6 to 8 and 9 to 11 years) and the amounts of food in the food plans after adjustment.

The Nutritional Quality of the Food Plans

Nutritional goals for the plans are based on the 1974 RDA. The NAS-NRC states that the basis for the RDA is such that “even if a person habitually consumes less than the recommended amounts of some nutrients, his diet is not necessarily inadequate for those nutrients.” (See footnote 2.) Thus, the actual physiological requirement of most, but not necessarily all, individuals for a nutrient may be somewhat less than the RDA. Food plans developed to meet the RDA would be expected to provide generous amounts of nutrients for most persons.

⁵Model developed by Joseph L. Balintfy, University of Massachusetts, in consultation with Bruce Gray, Judy P. Chassy, and Betty Peterkin, Consumer and Food Economics Institute, Agricultural Research Service.

⁶A more detailed description of the model is given in the complete text of this paper. See contents page for information on ordering.

Table 4. Comparison of the amounts of foods in consumption pattern derived from 1965-66 survey and 1974 food plans

Food group	Unit	Food consumption pattern			1974 food plan		
		Low-cost	Moderate-cost	Liberal	Low-cost	Moderate-cost	Liberal
Milk, cheese, ice cream	quart	15.8	18.6	20.0	16.0	19.2	20.7
Meat, poultry, fish	pound	16.1	18.2	20.8	12.4	15.8	18.9
Eggs	dozen	1.7	1.8	1.8	1.2	1.3	1.3
Dry beans and peas, nuts	pound	1.1	1.1	1.2	1.4	1.2	1.3
Vegetables, fruit	pound	34.3	39.5	45.2	33.2	39.2	45.3
Grain products	pound	14.2	14.6	15.2	17.1	16.4	16.9

Allowances set in 1974 for protein and ascorbic acid for all sex-age categories are substantially lower than the 1964 allowances used in developing the earlier plans. Also, 1974 allowances for calcium, vitamin A value, riboflavin, and niacin for certain sex-age categories are lower than those set in 1964. On the other hand, thiamin allowances for all sex-age categories and iron allowances for some categories in 1974 are higher than those in 1964. Of the additional nutrients for which allowances have been set since 1964, vitamin B₆, vitamin B₁₂, and magnesium were considered in development of the plans.

When nutritive values for average selections of foods within food groups are assumed, the plans provide the nutritional goals for food energy, protein, calcium, iron, vitamin A value, thiamin, riboflavin, niacin, and ascorbic acid. Fat provides no more than 40 percent of the food energy.

The iron enrichment level for bread and flour proposed by the Food and Drug Administration in 1973, was assumed in the development of the plans. If that level is not adopted, the plans for some sex-age categories will not provide the nutritional goal for iron. However, all plans provide iron in excess of the amount specified by the NAS-NRC as likely to be furnished by a balanced and varied diet—6 mg of iron/1000 kcal—when current enrichment levels are assumed. Iron fortified cereal is recommended for infants and children 1 to 2 years of age.

The vitamin B₆, vitamin B₁₂, and magnesium content of many foods in the plans is not known. Nevertheless, a rough estimate was made of levels provided by the plans. Plans furnish more than the RDA for vitamin B₁₂ but do not meet the RDA for vitamin B₆ and magnesium for several sex-age categories. Plans that meet the nutritional goals for vitamin B₆ and magnesium can be developed, but require excessively large amounts of vegetables, fruits, and cereals—two to three times as much as consumed by some sex-age categories as represented in the 1965-66 Household Food Consumption Survey. Such distortion of food consumption is not justified in view of the limited food composition data available for these two nutrients. Therefore, goals used in developing the plans were adjusted to assure

that the plans provide 80 percent or more of the RDA for vitamin B₆ and magnesium.

Phosphorus levels of foods in the plans were not calculated but are believed to be well above the RDA. If iodized salt is used, the RDA for iodine will be met.

Insufficient reliable information is available on the content in foods of the four other nutrients for which RDA are set—vitamin D, vitamin E, folacin, and zinc—to make reliable estimates of levels provided by the plans.

Allowances are not specified by the NAS-NRC for some dietary factors of adequate diets. An example is linoleic acid, an essential fatty acid found in large concentrations in many oils that come from plants. Notable exceptions are olive oil and coconut oil. Margarines, salad dressings, mayonnaise, and cooking oils are usually made from one or more vegetable oils. Also, dietary fiber is necessary for the normal functioning of the intestinal tract. Good sources of fiber include whole-grain cereals, fruits, vegetables, and legumes, such as dried peas and beans.

Differences Between the 1974 and 1964 Plans

The 1974 plans differ from those developed in 1964 in several ways. Generally, all three 1974 plans contain considerably less eggs, potatoes, and dark-green and deep-yellow vegetables than the 1964 plans. In the development of the 1964 plans, amounts of eggs and dark-green vegetables consumed were increased greatly, especially to provide iron. In the 1974 plans, cereals, flour, and bread with iron added provide a larger share of iron. Amounts of potatoes and dark-green and deep-yellow vegetables in the 1974 plans, although smaller than amounts in earlier plans, are not smaller than those in the food consumption patterns.

The 1974 low-cost plan for most sex-age categories contains slightly more, and the moderate-cost and liberal plans slightly less, meat, poultry, and fish than the earlier plans. However, the more expensive plans contain appreciably more dry beans and peas and nuts. Dry beans, cereal, bread, and flour groups are important in all plans, especially as sources of iron, vitamin B₆, and magnesium.

The amounts of selected food groups in the 1964 and 1974 plans at low cost and moderate

cost for a family of four (couple and children 6-8 and 9-11 years) are as follows:

	Unit	Low-cost plan		Moderate-cost plan	
		1964	1974	1964	1974
Milk, cheese, ice cream	quart	16.5	16.0	17.5	19.2
Meat, poultry, fish	pound	11.5	12.4	17.2	15.8
Eggs	dozen	2.1	1.2	2.4	1.3
Dry beans and peas, nuts	pound	1.4	1.4	.9	1.2
Vegetables, fruit . .	pound	40.8	33.3	43.5	39.2
Grain products* . .	pound	12.5	11.5	11.5	10.3

*Weight in terms of cereal, flour, and the flour in bakery products.

Procedures Used to Estimate Costs

To estimate the cost of the plans, ARS scientists assume that families following the plans select the kinds and amounts of foods in each of the food groups that the survey households at the three food cost levels selected on the average.⁷ For example, the percentage of total meat used by the selected survey families that is ground beef, beef chuck, stewing beef, and so forth, is assumed in the plan. These average selections are believed to provide the most reliable basis for food guides such as these to be used nationwide.

The average prices paid for almost 2,000 different foods are used as a basis for estimating the costs. These prices reflect differences in container sizes, brands, quality of food, and price levels of stores selected by families who use food at different levels of cost.

Costs of foods in the food plans are estimated each month using the following procedures:

1. The prices paid by survey households are updated using the percentage change in prices of a list of about 100 carefully defined foods from the time of the survey to the month of the estimate. Prices for these foods are collected routinely by the Bureau of Labor Statistics (BLS) from a representative sample

⁷A list of the most commonly used foods in the plans for a family of four is available on request from the Consumer and Food Economics Institute.

of stores in selected cities across the country. For example, if survey households selected as a basis for the low-cost plan paid an average price of 60 cents a pound for ground beef in 1965-66 and the price for ground beef collected by BLS in December 1974 is 50 percent higher than the price collected by BLS in 1965-66, a price of 90 cents (60¢ + 50% of 60¢) would be used for ground beef in figuring the cost of the low-cost plan in December 1974. Prices of certain other low-cost cuts of beef that were used by survey families, but not priced regularly by BLS, would be increased by 50 percent also. The percentage increase in the BLS price for higher cost beef cuts are used to update prices paid by survey households for other cuts of beef.

2. The updated prices for foods in each food group for each of the three plans are weighted by the average amounts of foods used by the survey households to derive a price per unit—pound, quart, or dozen.

3. The prices per unit are then multiplied by the number of units of the food groups in the plans for the different sex-age categories (tables 1, 2, and 3) to determine the cost of foods from each food group.

4. Costs for the food groups are totaled. These totals, rounded to the nearest 10 cents, are released as the cost of food at home for a week. Unrounded weekly costs are multiplied by 4.333, then rounded to the nearest 10 cents to estimate the cost for the month.

The October 1974 costs for the 1974 food plans are shown in table 5; comparable costs for the 1964 plans are shown in table 6. The costs of the three 1974 plans for many families are similar to costs for the earlier plans. However, 1974 plans for preschool children and teenagers account for a smaller part of the family food budget and plans for women 55 years and over and for men 20 years and over, for a larger share, than the earlier plans.

Limitations of the Food Plans

The 1974 plans were developed using the most recent, complete, and reliable information available; however, such information has limitations. For example, current food consumption in U.S. households may be somewhat different than indicated by the 1965-66

survey data. USDA's annual estimates of the disappearance of food (national food supply) and Supermarketing magazine's annual study of consumer expenditures in grocery stores show no dramatic changes since 1965, but these studies provide information only for the country as a whole, not for households at different economic levels.

Averages—average amounts of foods consumed and average prices paid by groups of selected households—were used in developing

the 1974 plans. More information on variation and factors affecting variation in food consumption and food prices among households and variation in food patterns of individuals in households of different sizes would be useful. Such information may be provided by a proposed nationwide study of food consumption. With the expanded data from the new study, new methods for developing and costing the plans can be explored.

Table 5. Cost of Food at Home,¹ Estimated for 1974 Food Plans at Three Cost Levels, October 1974, U.S. average

Sex-age groups ²	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
FAMILIES						
Family of 2:						
20 to 54 years ²	26.90	33.60	40.30	116.60	145.50	174.40
55 years and over ²	23.90	29.40	35.20	103.30	127.60	152.20
Family of 4:						
Preschool children ³	38.10	47.10	56.50	164.60	204.30	244.60
School children ³	46.10	57.30	68.70	199.30	248.50	297.50
INDIVIDUALS⁵						
Child:						
7 months to 1 year	5.20	6.30	7.40	22.40	27.30	32.20
1 to 2 years	6.20	7.50	9.00	26.70	32.70	38.90
3 to 5 years	7.40	9.10	10.90	31.90	39.30	47.20
6 to 8 years	9.60	11.90	14.30	41.50	51.60	61.80
9 to 11 years	12.00	14.90	17.80	51.80	64.60	77.20
Male:						
12 to 14 years	12.80	15.90	19.00	55.30	68.70	82.20
15 to 19 years	14.00	17.50	21.00	60.90	75.70	90.80
20 to 54 years	13.60	17.00	20.50	58.80	73.80	88.70
55 years and over	11.90	14.70	17.70	51.60	63.90	76.60
Female:						
12 to 19 years	11.30	14.00	16.60	49.10	60.50	72.00
20 to 54 years	10.90	13.50	16.10	47.20	58.50	69.80
55 years and over	9.80	12.00	14.30	42.30	52.10	61.80
Pregnant	13.40	16.50	19.60	58.30	71.50	85.00
Nursing	14.30	17.70	21.00	62.00	76.60	91.20

¹ These estimates were computed from quantities of food plans presented in tables 1, 2, and 3. The costs of the food plans were first estimated by using the average price per pound of each food group paid by urban survey families at three selected food cost levels in 1965-66. These prices were adjusted to current levels by use of *Retail Food Prices by Cities* released periodically by the Bureau of Labor Statistic.

² Ten percent added for family size adjustment.

³ Man and woman, 20-54 years; children, 1-2 and 3-5 years.

⁴ Man and woman, 20-54; child, 6-8 and boy 9-11 years.

⁵ The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5-person—subtract 5 percent; 6-or-more-person—subtract 10 percent.

Composition data are incomplete for many foods used in developing the food plans. More complete composition data on a wider variety of foods will be forthcoming from the Nutrient Data Bank—a repository for food composition

data being developed in the Consumer and Food Economics Institute. This additional information will make possible a more complete assessment of the nutritional quality of foods in the plans.

Table 6. *Cost of Food at Home,¹ Estimated for 1964 Food Plans at Three Cost Levels, October 1974, U.S. average*

Sex-age groups ²	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
FAMILIES						
Family of 2:						
20 to 35 years ³	26.70	33.70	41.00	115.80	146.20	177.30
55 to 75 years ³	21.70	27.80	33.10	93.90	120.60	143.60
Family of 4:						
Preschool children ⁴	38.60	48.50	58.70	166.90	210.60	253.60
School children ⁵	45.00	56.90	69.30	195.00	246.80	299.50
INDIVIDUALS⁶						
Children, under 1 year	5.00	6.20	7.00	21.60	27.00	30.10
1 to 3 years	6.50	8.00	9.60	28.00	34.90	41.50
3 to 6 years	7.80	9.90	11.80	33.60	42.80	50.90
6 to 9 years	9.60	12.10	15.00	41.40	52.50	64.80
Girls, 9 to 12 years	10.80	13.80	16.10	46.90	59.90	69.60
12 to 15 years	11.90	15.30	18.30	51.60	66.40	79.50
15 to 20 years	12.10	15.20	17.90	52.50	65.70	77.30
Boys, 9 to 12 years	11.10	14.20	17.00	48.30	61.40	73.50
12 to 15 years	13.10	17.00	20.10	56.60	73.70	87.00
15 to 20 years	15.10	19.00	22.70	65.30	82.40	98.30
Women, 20 to 35 years	11.20	14.10	16.90	48.50	61.30	73.00
35 to 55 years	10.70	13.60	16.10	46.50	58.70	69.90
55 to 75 years	9.00	11.60	13.70	39.10	50.10	59.30
75 years and over	8.20	10.30	12.40	35.40	44.50	53.90
Pregnant	13.10	16.30	19.20	56.90	70.80	83.10
Nursing	15.30	18.90	22.00	66.40	81.90	95.50
Men, 20-35 years	13.10	16.50	20.40	56.80	71.60	88.20
35 to 55 years	12.10	15.30	18.50	52.60	66.30	80.20
55 to 75 years	10.70	13.70	16.40	46.30	59.50	71.20
75 years and over	10.00	13.20	15.80	43.20	57.00	68.30

¹ These estimates were computed from quantities in food plans published in *Family Economics Review*, October 1964. The costs of the food plans were first estimated by using the average price per pound of each food group paid by urban survey families at three selected income levels in 1965. These prices were adjusted to current levels by use of *Retail Food Prices by Cities* released periodically by the Bureau of Labor Statistics.

² Age groups include the persons of the first age listed up to but not including those of the second age listed.

³ Ten percent added for family size adjustment.

⁴ Man and woman, 20-35 years; children, 1-3 and 3-6 years.

⁵ Man and woman, 20-35; child, 6-9 and boy 9-12 years.

⁶ The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5-person—subtract 5 percent; 6-or-more-person—subtract 10 percent.

CLOTHING AND TEXTILES: SUPPLIES, PRICES, AND OUTLOOK FOR 1975

by Virginia Britton

Clothing Expenditures and Prices

Consumer spending on clothing and shoes was running at an annual rate of about \$351 per person in 1974, according to preliminary figures for the first three quarters of the year. This amount is about \$17 higher than in 1973. However, because of higher price levels in 1974, there appears to be a decrease of about 2 percent in terms of dollars of constant value (table 1).

The price level for apparel and upkeep averaged 6.9 percent higher during the first 9 months of 1974 than during the same period in 1973. The rise for clothing was, as usual, less than for the all-items index of the Consumer Price Index (table 2).

Among the three apparel subgroups, men's and boys' clothing led the price advance with an average increase of 7.1 percent during the first 9 months of 1974 over the same period of 1973. Increases were slightly less than 6 percent for women's and girls' clothing and for footwear.

Trade papers report consumer resistance to price increases, with trading-down in price lines, and demands for longer-lasting clothing and textiles of good quality and conservative style in the higher price lines. Women are reported to be accessorizing costumes they already own, using fancy printed sheets for drapes and bedspreads, and buying cheaper goods in items that children outgrow before wearing them out. Manufacturers of items such as shirts, pantyhose, and sheets are seeking to maintain their price lines in spite of increased costs to avoid pricing themselves out of the market. Thread manufacturers are promoting home sewing of garments, draperies, and slipcovers as a way of cutting costs. Estimates are that 45 million women make a total of 185 million garments a year at home plus some home furnishings and spend over \$3 billion a year for fabrics, thread, trimmings, zippers, notions, and patterns.

Retailers' efforts to cut costs and hold down prices include leaner inventories of clothing, with early markdowns of slow-moving goods; the hiring of fewer salesclerks; promotions of "irregular" items such as sheets and towels; and

more emphasis on private (retailer) brands. Advertising stresses middle and lower price items. Retailers are increasing their showing of simpler items such as casual "leisure" suits for men; slacks and jeans; warmer and more practical clothing for women; and sneakers as low-priced footwear for adults as well as children. Retailers are importing items such as leather shoes and handbags from Brazil; sweaters, pantsuits, and flannel shirts from Hong Kong; and garments and nonleather shoes from Taiwan when they can be bought more cheaply. However, U.S. imports of footwear were lower during the first 9 months of 1974 compared with the same period in 1973. Imports of total footwear (in number of pairs) were down 7 percent, while imports of leather footwear were down about 14 percent. Imports provide about 40 percent of our domestic supply of total nonrubber footwear. According to preliminary estimates, domestic production of shoes during the first 8 months of 1974 was 10 percent lower than in the same period of 1973.

During 1975, price levels for apparel will probably continue to rise, and consumers will be bargain-hunting or trading-down. As pressures on consumer income continue, reduced amounts available for discretionary spending may bring further reductions in the average person's spending on clothing, at least in terms of dollars of constant value.

Supplies of Raw Materials

U.S. mill use of *total fibers* per capita in 1974 is estimated to be about 6 percent lower than in 1973. The preliminary estimate is a total mill use of almost 56 pounds of fiber per capita in the calendar year 1974 including about 16 pounds of cotton, 39 of manmade fibers, and less than 1 pound of wool.

U.S. mills will probably have used about 11.8 billion pounds of fibers in calendar year 1974, down from the 12.5 billion pounds used in 1973. Raw fibers moved from a "shortage" situation in early 1974 caused by the oil embargo, to a "surplus" situation in the later part of the year owing to declining demand.

Reduced consumer purchases of textile products and reduced demand for items such as carpets and drapery by the depressed housing industry result in retailers cutting back their orders which in turn causes cutbacks at the fabric level and ultimately at the raw fiber level. The slowdown in demand in the textile industry started to become acute in August and September 1974, and curtailment of production was announced by various mills. Substantial improvement is not generally expected before late 1975. Mill managers are

also worried about possible shortages of natural gas for their finishing plants during the winter and are seeking deregulation of gas prices in hopes of maintaining their supplies of gas.

Although U.S. cotton supplies are moderately lower for the current crop year, August 1, 1974, to July 31, 1975, than in the previous year, declining use by U.S. mills and for export will allow a sizable increase in cotton stocks by August 1, 1975. U.S. mill use during the current crop year is expected to be at the lowest level since the late 1930's.

Table 1. Annual expenditures on clothing and shoes

Years ¹	Per capita expenditures		Percent of expenditures for personal consumption		Aggregate expenditures	
	1958 dollars	Current dollars	1958 dollars	Current dollars	Billions of 1958 dollars	Billions of current dollars
1929	149	77	13.0	12.1	18.2	9.4
1930-40	122	51	11.8	10.7	15.6	6.5
1941-46	151	100	11.8	12.9	20.7	13.7
1947-61	144	140	9.0	9.4	23.5	22.9
1962-65	160	170	8.4	8.3	30.6	32.4
1966	185	204	8.7	8.6	36.4	40.3
1967	184	213	8.5	8.6	36.6	42.3
1968	188	231	8.3	8.6	37.8	46.3
1969	191	248	8.3	8.7	38.8	50.2
1970	191	258	8.2	8.6	39.1	52.8
1971 ²	197	277	8.2	8.6	40.8	57.3
1972	209	302	8.3	8.6	43.6	63.0
1973	220	334	8.4	8.7	46.3	70.2
1974 ³	215	351	8.4	8.5	45.4	74.2

¹ Earlier years are grouped on basis of similarity in level of per capita expenditures in 1958 dollars.

² Revised data for 1971 to 1973.

³ Preliminary figures—average of estimates for first 3 quarters of 1974 (i.e., seasonally adjusted quarterly totals at annual rates).

Source: Department of Commerce.

Table 2. Annual percentage change in selected indexes of consumer prices

Index	1970	1971	1972	1973	1974 ¹
Consumer Price Index	+5.9	+4.3	+3.3	+6.2	+10.8
Apparel and Upkeep Index ²	+4.1	+3.2	+2.1	+3.7	+6.9
Men's and boys' clothing	+4.2	+2.7	+1.3	+3.7	+7.1
Women's and girls' clothing	+3.8	+3.5	+2.4	+3.5	+5.8
Footwear	+5.3	+3.2	+2.8	+4.2	+5.6

¹ Preliminary estimates—average for first 9 months of 1974 compared with average for first 9 months of 1973.

² Also includes infants' wear, sewing materials, jewelry, and apparel upkeep services, for which separate indexes are not available.

Source: Bureau of Labor Statistics.

Continued declines in cotton prices in recent months from last season's highs primarily reflect weaker demand for cotton, which more than offsets the recent deterioration in crop prospects. Weaker demand for cotton is primarily due to lower mill use of all fibers, but also to greater relative abundance of manmade fibers than early in the year, and large imports of cotton textiles.

Manmade fibers also moved from a shortage to a surplus position during 1974. Producers' stocks of noncellulosics were reduced to an "absolute low" by February 1974 when, as a result of the oil embargo and declines in petrochemical feeder stocks, production cutbacks were as much as 35 percent by some major producers. Inventories at the end of September were markedly higher than earlier in the year. U.S. producers' stocks of noncellulosic fibers (largely polyesters and acrylics) rose about 16 percent in September 1974 as shipments declined from the previous month. Shipment of cellulose (rayon and acetate) also declined in September with a resulting increase in inventory. Following this inventory buildup, a number of major producers announced production cutbacks for manmade fibers—many in October, and by early November, cutbacks may have totaled about 20 percent for the industry. Cutbacks in production were also announced in Europe and the Orient, amounting to perhaps 20 to 30 percent since June. The cutback in polyester fibers for apparel was particularly sharp.

With cutbacks in orders, some price reductions for manmade fibers may occur, or at least there may be a slowdown on price increases. Some building plans for new plants may be slowed down. For the manmade fibers industry, supply and demand for petrochemicals are expected to be in balance in 1975, according to the *Federal Energy Administration* (October 1974). Crude oil requirements of the fiber industry amount to only 1 percent of total national requirements, according to trade reports.

U.S. *wool* production (apparel class) in 1974 is estimated at 8 percent below 1973. The U.S. outlook for 1975 is for continued decline in numbers of sheep and wool output. However, world production of wool is expected to

increase in 1975 and prices may be somewhat lower than present levels, especially if textile mill activity continues to be sluggish. Recent trade reports indicate greater use of all-wool and wool blends for fall 1975 in higher priced garments such as men's tailored suits and women's coats. But markets lost to manmade fibers in recent years will be difficult to regain despite limited availability and high prices of petrochemicals. Textile mills will want assurances of more stable supplies and prices for wool.

U.S. production of cattle *hides* in 1974 was estimated at about 8 percent above those of 1973, as more cattle went to market. Furthermore, cattle marketings in 1975 are expected to increase about 8 percent over 1974. Net exports of cattle hides in the first 8 months of 1974 were up some from the same period of 1973. Increases went largely to Japan since cattle marketings in Western Europe were substantially higher than in 1973. It should be kept in mind that shoes with nonleather uppers constitute a large part of the U.S. supply of shoes, and most shoes have nonleather soles.

Conclusion

Many of our suggestions made last year still apply. As consumers we need to plan carefully any necessary purchases of clothing and textiles, shop wisely for appropriately durable items, and repair and alter garments to extend their use. Garments that we can no longer wear should be given away. As we manage our incomes, we direct the use of the nation's resources for the items most important to us. As a result of consumer resistance to rising prices for clothing and textiles and retailers' efforts to cut costs, we may find that stores have smaller and less varied stocks than we are accustomed to seeing. Retailers are likely to concentrate on what they expect will be best-selling items; the ultimate simplification would be unisex, unisize, and unistyle garments. Clearance sales come early. Major shortages are unlikely. Because supplies of raw materials are expected to be large in relation to demand during the coming year and plant capacity and labor are available, production can be increased in response to any rise in consumer purchases.

THE OUTLOOK FOR FOOD SUPPLIES, DEMAND, AND PRICES

by J. Dawson Ahalt

U.S. consumers can look to ample food supplies in 1975, though perhaps slightly less than the record per capita levels of 1974. Despite prospects for further declines in economic activity, and barring unforeseen developments, food prices are expected to advance on a broad front in the opening months of 1975. For the entire first half of 1975, food prices at retail may increase at rates close to the average increase witnessed in 1974. Price developments in the first half of the year will reflect increases in raw commodity prices as well as further advances in costs of processing, distributing, and marketing food.

Developments in 1974

Per capita food consumption hit a new high in 1974, while prices at grocery stores averaged an estimated 15 percent higher, an increase just slightly less than was experienced during the turbulent year of 1973. Most of the gain in food use was due to larger marketings of livestock and products, reduced feeding of high cost grain to animals, and a smaller volume of exports.

Retail food prices in 1974 made their biggest jump in the first quarter. Most of the increase came from higher prices in grocery stores as opposed to the cost of away from home eating, a pattern that continued throughout the year. However, in the first quarter, unlike in the balance of 1974, price pressure was due to increases in a wide range of farm commodity prices. Two significant developments are noteworthy in the market behavior during the last 9 months of the year. First, prices for crop-based foods increased much more rapidly than prices for animal products—a sharp reversal of the 1973 pattern. Second, price increases at retail came primarily from widening farm-retail price spreads. For 1974 as a whole, the spread between farm and retail prices is estimated 21 percent higher than in 1973 and accounts for over four-fifths of the total increase in the retail price of a market basket of food. The wider spreads reflect higher wage settlements and general inflationary trends which have lifted virtually all costs for food processing and marketing firms.

Demand for Food

Consumer outlays for food outpaced income growth for the second consecutive year in 1974, boosting the percent of disposable personal income spent for food to an estimated 16.8 percent. Unlike the 1973 performance, however, when all of the increase was due to higher food prices, part of last year's spending put more food on consumers' tables.

For 1975, growth in economic activity is expected to be flat through mid-year, and after-tax real disposable incomes will probably not change much from current levels. Thus, consumers are likely to continue to devote a larger portion of after-tax income to outlays for food as well as fuel. Increases in food outlays for the year ahead, however, could be tempered as consumers adjust their diets away from pork, poultry, and dairy products which will be in shorter supply. Outlays on clothing, and automobiles are likely to account for a declining portion of disposable income as they did in 1974.

The impact of the Family Food Programs on the demand for food has stabilized in the past few years. The rapid growth in the Food Stamp Program has about offset the phasing out of direct family food distribution. For 1975, the value of food stamps will continue to be adjusted in response to changes in the food at home components of the Consumer Price Index. Moreover, prospects for further increases in unemployment suggest that participation in the Food Stamp Program will rise in the year ahead. But the effects of these factors on the demand for food will probably be about neutralized by an increase in purchasing requirements. This latter action reflects efforts to hold down Federal outlays.

Changes Are in the Wind

Attempts to forecast food supplies and prices for 1975 carry the usual uncertainties that plague analysts. The food picture in 1975 will be framed by a number of dramatic economic developments, some of which have been in the making for several years. The influences of these events will have varying effects on domestic and world markets and will

be felt next year and beyond. The following outlines some of the most important developments that will extend in 1975:

1. Declines in world grain crops in 1972 and 1974, with the major source of the drop in 1974 being the drought-damaged U.S. feed crops.
2. Reduced grain stock levels throughout the world have made prices more volatile, enhanced the vulnerability of markets to future weather developments, and raised the risk and uncertainty for both producers and consumers.
3. The beginning of a liquidation phase in the cattle cycle. This development boosted per capita beef supplies to record levels in 1974 and will continue to keep U.S. red meat supplies at high levels throughout 1975, despite prospects for further losses to producers.
4. Further declines in worldwide economic activity and prospects for some further deterioration in U.S. consumer sentiment until late 1975.
5. Continued advances in energy and packaging costs, the likelihood of escalated wage settlements, and rising transportation rates all portend a continuation of wider than normal farm-retail price spreads.

The net effect of the above developments will add to food costs in the coming year. The longer run implications of feed-livestock developments signal some potential changes in U.S. food production and consumption patterns. With grain prices the highest in relation to livestock and livestock product prices in a decade, producers are cutting back on the use of grain for feed while some are paring down the size of their livestock enterprises. This suggests that U.S. consumption patterns, which in post World War II period have shown dramatic growth in the use of animal products, will likely tilt somewhat in the future in favor of increased direct consumption of crop products. Some indications of this change are already evident in the growing use of vegetable oils and increased consumption of processed fruits and vegetables.

A look at trends in food use shows per capita consumption of animal products peaked in 1971, while use of crop products has grown almost continuously since the early 1960's. This shift is likely to become more pronounced in the future primarily as a result of changes in market forces. As inflation and reduced economic activity have eroded buying power, consumers have adjusted their budgets toward less expensive foods which include crop products. This adjustment has come about at a time when grains and oilseeds as well as many other crop products have been in tight supply. Even though prices for foods based on these products have risen accordingly, they are usually less expensive than most animal product foods.

Prospective Food Supplies and Prices

The effects of the drought-damaged 1974 feed crops are already being felt in the marketplace. However, since the near-term response to high feed costs varies by type of enterprise, the effects are not always easily discernible. In the latter part of 1974, cattle marketings were stepped up, sow slaughter ran larger than normal, and hog farrowings and poultry output were cut back.

Even with increased meat slaughter rates in 1974, the large cattle herd will support a substantial expansion in beef production in 1975 without curtailing growth in cattle numbers. In the first half of 1975, beef production is estimated to run 5 to 7 percent above the large volume of a year earlier. However, cattle prices are likely to recover some from current levels as pork and poultry output is reduced. Retail prices for beef and meats in general could edge slightly higher in coming months. Pork supplies in the first half of 1975 will be sharply curtailed. Broiler production typically shows the quickest response to changes in feed costs. Supplies in the first half of 1975 could lag year earlier output by 12 to 15 percent. Supply reductions for pork and broilers indicate rising prices at all market levels although large cold storage stocks and production increases for beef will have a partial buffering effect. Production of eggs and milk is also likely to be reined back by higher feed costs. However, stocks of manufactured

dairy products are large and will dampen some of the upward movement in prices for dairy items.

On balance, per capita supplies of total animal foods in the first half of 1975 are expected to drift lower by more than the normal seasonal decline. If producers carry out their intentions, per capita market supplies by the Spring quarter especially could be down from the 1974 pace even though beef supplies will be large. This will be in sharp contrast to the expansion in market supplies in 1974, and suggests that even though consumer demand is expected to be weak, prices for the livestock product foods could advance from present levels.

Among the crop foods, skyrocketing prices for raw sugar have put upward pressure on prices for sugar products, beverages, and high sugar content food products. In the fats and oils complex, increased use of margarine and cooking and salad oils in the face of reduced U.S. oilseed crops has contributed to substantial increases in prices of vegetable oils. However, the biggest increases in retail prices for these products are probably behind us. Prices for fresh vegetables are expected to rise seasonally in the first half of 1975. Prices for processed fruits and vegetables are expected to increase reflecting sharp increases in raw commodity costs, especially for vegetables, and much higher costs for packaging materials. On the other hand, prices for fresh fruits are expected to demonstrate modest price behavior due primarily to the record 8 percent larger expected citrus crop. The demand for cereal and bakery products increased in 1974 at a

time when wheat and flour supplies were extremely tight. This relationship is expected to continue through the first half of 1975 although price increases at retail are expected to be relatively modest. Rice supplies were large last season suggesting that prices will advance only slightly and per capita consumption may rise again this year.

For the first half of 1975, barring a sharp collapse in domestic and world demand, retail grocery store prices could advance at rates approaching 3 to 4 percent per quarter (a 15-percent annual rate). In contrast to the large increases in farm-retail spreads in 1974, for the first half of 1975 processing and marketing costs are expected to increase more in line with overall price trends. Even so, farm-retail spreads are likely to be wider than in most other recent years.

Prices for food eaten away from home are likely to rise less rapidly in the first half of 1975. This slower rate of increase for food eaten away from home which also occurred in 1974 reflects the erosion in consumers' real incomes.

For the second half of 1975 supply-demand prospects are highly uncertain. If weather cooperates in the United States and around the world and if economic activity weakens more than expected, production increases relative to demand growth could be quite large leading to significant slowing in price increases. Conversely, with world grain stocks at precariously low levels, another year of poor growing conditions at a time when world food needs are expanding could ignite a rapid pace of food price advances throughout 1975.

ANIMAL CARE, PLANT CARE, AND FOOD CARE— FOR CONSUMER PROTECTION

by Sara Beck

The *Animal and Plant Health Inspection Service (APHIS)* was established by the Secretary of Agriculture on April 2, 1972. The Agency conducts the Department's regulatory and control programs to (1) protect the wholesomeness of meat and poultry products

for human consumption and (2) protect and improve animal and plant health for the benefit of man and his environment. In cooperation with State governments, *APHIS* administers Federal laws and regulations to achieve these objectives.

Animal Care

Successful nationwide campaigns have been conducted to eradicate diseases and pests that seriously threaten animal health. One such disease is brucellosis, found in cattle, swine, and other livestock. It can be transmitted to man in the form of undulant fever and causes persistent symptoms resembling influenza. Cattle losses from the disease are manifested by premature calves, impaired reproductive capacity, and reduced milk production. Another disease is exotic Newcastle disease in poultry. It is a foreign virus disease that is highly fatal to poultry and other birds but harmless to consumers. It can seriously lower production of poultry meat and eggs. An outbreak in southern California in November 1971 was eradicated in July 1974.

APHIS regulates the import-export movement of animals to prevent or reduce the spread of animal diseases and pests between countries. The staff provides for inspection and quarantine of animals and poultry to be brought into the United States, and regulates the movement of animals leaving the United States to make sure they meet requirements of the importing country.

Under the Animal Welfare Act and the Horse Protection Act, APHIS takes action to promote humane standards in the handling, care, treatment, and transport of animals.

Plant Care

APHIS protects crops, trees, and other plants from damage by pests and disease; develops pest management plans to help producers reduce pest damage and to prevent environmental pollution; and keeps out foreign pests and diseases.

APHIS conducts organized campaigns against domestic plant pests and diseases. One campaign is being developed against the boll weevil. Boll weevil control costs cotton producers about \$70 million a year. At least 35 percent of all agricultural pesticides are used against this one cotton pest. If the boll weevil could be eradicated, the reduction in costs and environmental contamination would be well worth the effort.

The APHIS campaign against the gypsy moth, conducted in cooperation with other agencies of the Department, is to prevent

long-range spread of the pest and to wipe out isolated infestations. Gypsy moth is a serious pest of trees, particularly hard woods and evergreens, and is a real threat to timber resources, recreation and wildlife areas, and to aesthetic values of our parks, lawns, and city streets. The moths have defoliated as many as 2 million acres of timber and woodland in one year. Repeated defoliation can kill trees.

The cereal leaf beetle is a serious pest of grain crops. The beetles feed on leaves, chewing out long strips between the veins. This gives plants a yellowish-white frosted appearance. In parts of Europe, beetle damage has been so severe that crops had to be plowed under. So far, the cereal leaf beetle has not spread into major grain producing areas in the United States. APHIS' objective is to prevent that from happening.

Foods, plants, and animal products from foreign countries are inspected at borders and ports of entry to prevent the entry of foreign insects and diseases that could cause severe damage to our crops, forests, gardens, and livestock. Inspectors look for pests and diseases before they release restricted items to returning travelers. Materials that require extensive inspection, testing, or treatment may be held until they can be certified free of pests. Some items may be refused entry. Articles that contain pests or diseases and those determined to be high-pest risk are destroyed.

One plant, a piece of sausage, or a pet bird could be the means of bringing in destructive pests and disease. For example, 56 destructive Mediterranean fruit flies were discovered in figs, pears, and peaches in passenger baggage on one single international flight. "Medflies" invaded the United States on four earlier occasions and were eradicated at a total cost of over \$20 million. If the Medfly should become established in this country, it could seriously threaten—or even destroy—our citrus industry.

Food Care

Food care actually begins with animal and plant care. APHIS people work every hour of the day, every day of the week, in some part of the world, to help keep U.S. animals and plants healthy—so that food supplies for the American people can be plentiful and free from damage by pests or disease.

Food inspection. Under Federal Meat and Poultry Inspection, APHIS personnel inspect meat and poultry sold in interstate or foreign trade—from the slaughter of animals and birds through the handling and processing of products—to make sure these products are safe, wholesome, and accurately labeled. This inspection covers many areas:

- Processing plants must meet certain sanitation and equipment requirements.
- Animals and birds must be inspected before slaughter to make sure they're healthy.
- Each and every carcass, organ, and part must be inspected after slaughter and passed as a wholesome product or condemned as unfit for human food.
- All meat and poultry and other ingredients in processed products must be checked. All processing procedures and techniques must be under the supervision of an inspector. Procedures must insure the destruction of trichinae in ready-to-eat pork products.
- Containers, wrappings, netting, cords, and other materials that come in contact with the meat and poultry products must be inspected for safety and sanitation.
- Foreign countries exporting products to the United States must certify that they have an inspection program comparable to ours. USDA inspectors travel in foreign countries and review their programs. A statistical sampling is taken on the products at our port of entry. If this sampling shows that the products are not wholesome, they are either returned to the country of origin or disposed of under the supervision of an inspector.
- Inspection laboratories are maintained across the country to provide inspectors in packing plants with supplemental scientific data to aid them in making decisions concerning questionable meat and poultry products.
- In addition to "inplant" inspectors who make sure that the final product was prepared from healthy animals and under sanitary conditions, a staff checks compliance with meat and poultry inspection laws.

Regulation of labeling and packaging. Labels of meat and poultry products sold interstate or

in foreign trade are required to be truthful and accurate and must be approved by USDA before they can be used. The label, container, formula, method of manufacture, and sample of the product are submitted to the USDA and each part of the label is checked for accuracy; home economists check the contents to make sure they conform to the label and follow the cooking instructions on the label to be sure they are accurate.

All meat and poultry products must meet minimum Federal standards set up for the specific product. To develop and maintain adequate standards, the USDA staff uses a variety of techniques. For example, in the USDA test kitchens home economists examine similar products processed by various manufacturers to learn what current practices are. They compile information from restaurants about professional ways to prepare foods. They read cookbooks and other references to determine the standard definition of a product. Also, taste panels make sure products meet claims and expectations, and technical lab tests establish the level of fat or moisture in a product.

Consumer feedback is especially important in maintaining adequate standards. Between the time a proposed standard leaves the USDA test kitchens and the time it is incorporated into formal regulations, it is published in the Federal Register so that anyone who wishes can comment on it. Since regulations are principally designed to protect the consumer, consumer comments may decide whether or not a standard is adopted and what it will require. Proposed standards are frequently printed in the newspaper and broadcast over radio and television.

Following are several examples of recent changes in labeling and packaging regulations approved by the Department.

Effective December 10, 1975, is a change in regulations that will require lids of glass jars containing meat and poultry products to be designed to prevent the possibility of any dirt or insects entering the jar. This involves merely a simple change in lid design.

Effective January 1974 was a regulation that windowed packages of sliced bacon must show at least 70 percent of the length of a representative strip of bacon, and the window must be at least 1½ inches wide. Also,

information on the ingredients used in curing must be clearly stated on the label.

Effective January 1974 hot dogs and other cooked sausages, such as bologna and knockwurst, must be labeled in one of three ways: (1) If the product is made only from skeletal muscle meat plus the normal seasonings and curing agents, it may be labeled as hot dogs, franks, or wieners. If it's made from only one species, the label will say something like "beef franks." (2) This category will allow the use of hearts, tripe, and other edible byproducts along with the skeletal meat. Since these byproducts are sometimes called "variety meats," sausages including these parts must be labeled "franks with byproducts or variety meats." (3) This category includes products made in either of the other two ways plus binder materials such as nonfat dry milk and soy flour. Their labels must prominently show these ingredients, using names like "beef franks, soy flour added" or "hot dogs with byproducts, nonfat dry milk added." The binders cannot exceed 3½ percent of total content. (Remember that all ingredients will continue to be listed in decreasing order—the item making up most of the product is listed first. The fat content of hot dogs cannot exceed 30 percent.)

APHIS has issued guidelines for a voluntary nutrition labeling program for meat and poultry products. If a processor wishes to participate in the program, he would conform

to regulations governing the type and content of nutrition information and its placement on the consumer package. If the processor makes a nutrition claim for his product or if nutrients are added to the product, then he will be required to meet nutrition labeling regulations. Nutrition information would be titled, "Nutrition Information Per Serving." The serving size, the number of servings in the package, the calories, protein, carbohydrate, and fat content per serving would appear under this heading. Also listed would be the "Percentage of U.S. Recommended Daily Allowances" per serving for protein, vitamin A, vitamin C, thiamin, riboflavin, niacin, calcium, and iron. When the processor submits nutrition labels to APHIS for approval, he must also submit a plan for an inplant quality control program to make sure the product meets the nutritional values stated on the label.

On December 8, 1974, guidelines became effective for voluntary "open dating" on labels of meat and poultry products. Any calendar date used on meat or poultry products processed under Federal inspection will have to be identified in terms of a "packing date" or "use before date" or "sell by date." These dates may be further qualified by phrases such as "for maximum freshness," or similar terms. The new regulation, however, does not apply to fresh meats that are cut up and packaged in the individual retail store.

CHILDREN OF WORKING MOTHERS, MARCH 1974

Since 1970, the total number of children in families has dropped by 2.2 million, while the number of children with working mothers has risen by 1.2 million. Almost all the increase in the total number of children with working mothers occurred in families headed by women, while the drop in total number of children occurred exclusively in husband-wife families. Contributing to these opposing trends are the continuing long-term rise in the labor

force participation of married women, both with and without children; the declining birth rate; and an increase in the number of families headed by women, largely due to the escalating divorce rate.

Source: Waldman, Elizabeth, Children of Working Mothers, March 1974. MONTHLY LABOR REVIEW, pp. 64-67, January 1975.

SOME NEW USDA PUBLICATIONS

(Please give your ZIP code in your return address when you order these)

The following are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402:

- WOOD HANDBOOK: WOOD AS AN ENGINEERING MATERIAL. AH 72. Revised August 1974. \$7.85 (hardback).
- FAMILY FARE—A GUIDE TO GOOD NUTRITION. G 1. Revised July 1974. \$1.00.
- HOW TO MAKE JELLIES, JAMS, AND PRESERVES AT HOME. G 56. Revised September 1974. 40 cents.
- SELECTING SHRUBS FOR SHADY AREAS. G 142. Revised September 1974. 30 cents.
- DWARF FRUIT TREES. L 407. Revised June 1974. 25 cents.
- SHOPPER'S GUIDE. 1974 Yearbook of Agriculture. \$5.70 (hardback).
- HOW TO BUY FOOD—A FOUR-PART CONSUMER EDUCATION PACKAGE.
 1. *How to Buy Food—Lesson Aids for Teachers*. AH 443. \$1.40.
 2. *How to Buy Food Publications Packet*. \$4.45 (For information on purchasing individually, write USDA, AMS Information, Washington, D.C. 20250)
 3. *Como Comprar Los Comestibles—How to Buy Food*. PA 976. 80 cents.
 4. *U.S. Grades to Help you Choose*. (set of 10 color posters) \$3.75.

Single copies of the following are available free from the Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250:

- FATS IN FOOD AND DIET. AB 361. Revised November 1974.
- CALORIES AND WEIGHT—THE USDA POCKET GUIDE. AB 364. June 1974.
- THE REAL FACTS ABOUT FOOD. (Unnumbered) July 1974.

NEW LEGISLATION

- **Fair Credit Billing Act.** Gives consumers greater protection against inaccurate and unfair credit billing and credit card practices. (Public Law 93-495, Title III, October 28, 1974)
- **Ceiling on deposit insurance—** Increases ceiling from \$20,000 to \$40,000 in institutions covered by the Federal Deposit Insurance Corporation, the Federal Savings and Loan Insurance Corporation, and credit unions covered under the Federal Credit Union Act. (Public Law 93-495 Title I, October 28, 1974)
- **Equal Credit Opportunity Act.** Requires that financial institutions and other firms engaged in the extension of credit make that credit equally available to all credit-worthy customers without regard to sex or marital status. (Public Law 93-495, Title V, October 28, 1974)
- **Employee Retirement Income Security Act of 1974.** Provides protection to participants in private pension plans and in employee benefit plans (such as health insurance, vacation benefits, training programs, and legal services). (Public Law 93-406, September 2, 1974)
- **Housing and Community Development Act of 1974.** Affects community development, assisted housing, mortgage credit assistance, rural housing, mobile home construction and safety standards, and consumer home mortgage assistance. (Public Law 93-383, August 22, 1974)

CONSUMER PRICES

Consumer Price Index for Urban Wage Earners and Clerical Workers
(1967 = 100)

Group	Oct. 1974	Sept. 1974	Aug. 1974	Oct. 1973
All items	153.0	151.7	149.9	136.6
Food	166.1	165.0	162.8	148.4
Food at home	166.5	165.5	163.0	148.7
Food away from home	164.7	163.1	161.9	147.7
Housing	156.7	154.9	152.8	138.1
Shelter	159.9	158.1	156.1	144.7
Rent	132.2	131.4	130.9	125.9
Homeownership	170.1	167.9	165.4	151.5
Fuel and utilities	155.2	154.0	152.6	128.6
Fuel oil and coal	225.5	222.7	220.9	141.1
Gas and electricity	151.5	150.2	148.5	127.4
Household furnishings and operation	149.0	146.6	143.9	126.7
Apparel and upkeep	141.1	139.9	138.1	129.6
Men's and boys'	141.4	140.0	138.4	128.3
Women's and girls'	140.2	138.8	136.6	131.4
Footwear	141.7	141.1	139.9	132.0
Transportation	142.9	142.2	141.3	125.0
Private	142.3	141.4	140.5	122.9
Public	148.8	148.8	148.7	145.2
Health and recreation	145.2	144.0	142.6	132.1
Medical care	156.3	155.2	153.7	140.6
Personal care	143.0	141.2	139.3	127.3
Reading and recreation	137.8	137.0	135.2	127.2
Other goods and services	141.4	140.4	139.4	130.3

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Index of Prices Paid by Farmers for Family Living Items
(1967 = 100)

Item	Nov. 1974	Oct. 1974	Sept. 1974	Aug. 1974	July 1974	June 1974	Nov. 1973
All items	171	167	166	164	161	160	146
Food and tobacco	---	---	167	---	---	161	---
Clothing	---	---	176	---	---	167	---
Household operation	---	---	160	---	---	152	---
Household furnishings	---	---	146	---	---	138	---
Building materials, house	---	---	181	---	---	177	---

Source: U.S. Department of Agriculture, Statistical Reporting Service.

DR. BERNICE WATT RETIRES

Dr. Bernice Watt, Group Leader of the Nutrient Data Research Center of the Consumer and Food Economics Institute, retired on December 31, 1974, after 33 years with the

U.S. Department of Agriculture. Dr. Watt received the Department's Distinguished Service Award in June 1974 for her work on food composition.

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This issue is made up, for the most part, of condensations of papers prepared for the National Agricultural Outlook Conference, held in Washington, D.C., December 9-12, 1974. For a free copy of the complete text, send your request—giving title and author of the Article—to the Consumer and Food Economics Institute, Agricultural Research Service, U.S. Department of Agriculture, Federal Building, Hyattsville, MD 20782. Please give your ZIP code with your return address.

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